



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/081,887	02/22/2002	Andreas Lubbertus Aloysius Johannes Dekker	41942-04500	9941

7590 10/29/2003

Kent A. Fischmann, Esq.  
3151 South Vaughn Way, Suite 411  
Aurora, CO 80014

EXAMINER

KREMER, MATTHEW J

ART UNIT PAPER NUMBER

3736

DATE MAILED: 10/29/2003

//

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

10/081,887

Applicant(s)

DEKKER, ANDREAS LUBBERTUS  
ALOYSIUS JOHA

Examiner

Matthew J Kremer

Art Unit

3736

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 12 September 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-44 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 29-36 is/are allowed.
- 6) ☒ Claim(s) 1-28 and 37-44 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 9.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 102***

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1-3, 7-10, 12-17, 20-23, 25, 37-38, and 40-44 are rejected under 35 U.S.C. 102(e) as being anticipated by U.S. Patent 6,358,201 to Childre et al. Childre et al. teaches a method of obtaining a time-based pleth signal (column 11, lines 24-30 of Childre et al.), transforming the signal into a frequency domain (column 13, lines 44-50 of Childre et al.), processing that data in the 0.05-0.5 Hz range (column 2, lines 56-67 of Childre et al.), and monitoring the low frequency variation over time to identify a characteristic of interest, i.e, the entrainment ratio (Abstract of Childre et al.). In regard to claims 1, spectral information to identify an effect related to a Mayer Wave is disclosed since analysis occurs around 0.1 Hz. (Fig. 4 of Childre et al.). In regard to claims 7-8 and 20, graphical outputs are disclosed. (Figs. 2-4, 6, and 8 of Childre et al.). In regard to claim 10, heart rate is determined. (Fig. 6 of Childre et al.). In regard to claim 14, a Hanning window is disclosed, which is considered a filter. (Fig. 7B of Childre et al.). In regard to claim 22, Childre et al. discloses determining heart rate variability.

(Abstract of Childre et al.). In regard to claim 23, a fundamental frequency is discovered in each bin. (step 66 in Fig. 7C of Childre et al.). In regard to claims 37-38 and 40-44, an apparatus for using the method is disclosed. (Fig. 5 of Childre et al.).

***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 4-6, 11, 18-19, 24, 26-28, and 39 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent 6,358,201 to Childre et al. as applied to claims 1, 9, 17, 22, and 37, and further in view of U.S. Patent 6,519,486 to Edgar, Jr. et al. Childre et al. does not teach band pass filtering of the spectral information signal. Childre et al. teaches finding peaks for analysis (step 66 of Fig. 7C of Childre et al.). Edgar, Jr. et al. teaches that band pass filters are used to isolate peaks in frequency spectrums for analysis. (column 11, lines 41-55 of Edgar, Jr. et al.). The filtering of Edgar, Jr. et al. would fulfill the requirement of isolating peaks for analysis as set forth in Childre et al. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to use the filtering of Edgar, Jr. et al. in the method and apparatus of Childre et al. since Childre et al. teaches the analysis of peaks in the frequency domain and Edgar, Jr. et al. provides a teaching of isolating peaks for such an analysis.

***Allowable Subject Matter***

5. Claims 29-36 are allowed.
6. The following is a statement of reasons for the indication of allowable subject matter. The prior art does not teach or suggest elevating the frequency of the respiration rate above the frequency range associated with a Mayer wave.

***Response to Arguments***

7. Applicant's arguments with respect to claims 1-28 and 37-44 have been considered but are moot in view of the new ground(s) of rejection.

***Conclusion***

8. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any

Art Unit: 3736

extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Matthew J Kremer whose telephone number is 703-605-0421. The examiner can normally be reached on Mon. through Fri. between 7:30 a.m. - 4:00 p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Max Hindenburg can be reached on 703-308-3130. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0858.



Matthew Kremer  
Assistant Examiner  
Art Unit 3736



MAX F. HINDENBURG  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 3700